

Minutes of the Database and Related Utilities meeting 1/31/03:

Attending

Dave Davis, Traudl Hansl-Kozanecka, Pat Nolan, Bob Schaefer, Karl Young, Julie McEnery

Minutes:

Bob: Joanne can't be with us today, and Toby is teaching a class at this time.

Bob: Traudl is having audio problems. But reports through the chat window that she thinks security measure at Saclay may prevent her from joining the meetings. She requests that we change the venue for the meetings. We should discuss this further by e-mail.

No one seemed to have problems with moving our meeting to Wednesday, although the main driver for our meeting time so far has been to try to include European participation, which so far has meant only Traudl.

Bob: We should review the document that Traudl has sent us regarding requirements for the mirrorsite database.

Bob walked through the D1 strawman design document, focusing on explaining the diagrams. This was followed by discussion about the design.

Karl: The mirroring of the root node could be done with a second processor in a dual processor machine. I would also suggest we mirror the OS disk as well as the data disks.

Pat: The advantage to using 2 separate machines over a dual processor machine is that you also have redundancy in all other hardware – memory boards, ethernet cards, etc.

Karl: Good point. I would like to mention that modern Beowulfs already come with a lot of fault tolerance already implemented. We should look into that more.

Pat: We should use RAID level 0 disks to do our mirroring (Note added after meeting – several people pointed out that Pat meant RAID level 1.)

(Pat: after meeting – the buzzword in for reliability is “failover”. You can find info about it at:

<http://www.ibiblio.org/pub/Linux/ALPHA/linux-ha/High-Availability-HOWTO.html>
<http://linux-ha.org/>

)

Karl: Regarding the SLAC Beowulf, I have root access to the SLAC machines identified for Beowulf development. I should probably get them up and running and install some management software like OpenPBS.

Julie: (chat window) if my audio worked I would be saying a lot of things now....

Bob: After talking with local Lab system administrators, it seems that we should let the Beowulf used for prototyping to die a natural death. It was decided that the hardware is so old that it may not support protocols being used for modern Beowulf administration. My hope was to get system administrators involved with the development of the Beowulf so that when we get a product there are no surprise objections. Having them adopt the old Beowulf now would have started that process.

Bob Use cases are being written for U1, U2, and U3 here at GSFC, we will present them for discussion at the next DB meeting, so people have an idea of what we are doing. Then we can solicit volunteers to do the rest of the DB and related utilities.

Karl: I think that is a good idea to do use cases for our tools.

Bob: We are continuing our efforts to load the simulated pointing data provided by Toby into a MySQL database.

Bob defined an SQL table and displayed it, and remarked that the SQL-99 standard (as mentioned in our database requirements document) is something that must be purchased for 405 Swiss franks from the ISO group.

Pat: I have a book which explains the SQL-99 standard
(Note added after meeting: Pat supplied the book information:
"SQL:1999" by Jim Melton and Alan R. Simon,
published by Morgan Kaufmann, ISBN 1-55860-456-1,
\$60 list price (paperback). Melton is the editor of
the SQL standard.
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Action Items

All

Review mirrorsite requirements document sent by Traudl and provide answers to address her questions.

If interested, e-mail your request for an account to kyoung@slac.stanford.edu

Bob

Writeup use cases for U1, U2, and U3. Supply use case template to group.

Explore meeting times, venues which can accommodate Traudl

Load simulated pointing data into MySQL.

Karl:

See what needs to be done to setup accounts on SLAC 2-machine Beowulf for people interested in developing D1 search code, and cluster management tools.
Talk to Julie about setup of SLAC Beowulf.

Julie:

Talk to Karl about setup of SLAC Beowulf